The GARZETTE

July, 2002 Volume 11, Issue 12



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The President's Pen

By Ike Chapman, K4WEC, GARS President

"CO Field Day, CO Field Day, this is WRGR .. Whisky Four Golf Radio calling CQ Field Day!" That call or something very similar ang out over the amateur radio bands during Field Day 2002 from eight different HF stations and our UHF/VHF station. The effort to get us to 2:00 on Field Day Saturday to issue that call was put forth by our outstanding Field Day committee chaired by David Adcock, KA4KKF. David was assisted by many of our fellow GARS members and I would like to mention them all here but at the risk of leaving someone out I won't attempt to do that. I will say that this was a great team effort and to all the folks that pitched in at the hospi-



tality tent, the antenna teams, the band captains, the food committee, and all those that came by and operated, you help is greatly appreciating in making this another great *GARS* Field Day showing.

One of the things you might have noticed missing from this year's Field Day was the club's portable crank up tower. The tower was damaged during tear down at last year's Field Day. After looking over the damage to the tower, we've decided that repairs would not be feasible to the existing tower so it will be scrapped. But we do have a plan to replace it. A club member has a 55 foot crank up tower that collapses down to 22 feet and has offered to the club for sale. The executive committee has voted to purchase the tower and we will now be setting up some work parties to first get the tower over to Marty Fowler's shop, then to disassemble the tower and clean up all the sections, replace the cable and any other hardware that needs to be replaced. and then reassemble the

(Continued on page 5)



Dan Keohan, KF4YSU, Sandy Harris, KF4BUW, and Brian Sigmund, KF4MWI are seen enjoying Field Day 2002.

See the article and more pictures on page 6.

THE GARZETTE

The GARZETTE is the official monthly organ of the Gwinnett Amateur Radio Society serving its members and other persons interested in the advancement of the amateur radio art.

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If possible, bring your articles to the monthly meeting in Microsoft Word format or by email to N1TOQ@arrl.net. Artwork can be accepted in most any graphics format and can be submitted via email to the same address. Alternate means of submittal can be arranged when necessary.

In keeping with the amateur radio spirit, permission is hereby granted for the reproduction of *The GARZETTE* articles by other amateur radio club newsletters provided that proper credit is given to the individual author and to *The GARZETTE*.

The GARZETTE is created on an Emachine -333 MHz computer using Microsoft Publisher 2000 and Microsoft Office 97.

The GARZETTE is published each month with the assistance of Hal Manning, who prints the news letter. Rick Patchin, KD4RFK does the final production work on The GARZETTE by folding & labeling. Dan Keohan KF4YSU, stamps and gets the end product to the Post Office each month. Many thanks to each of them and all article contributors.

Deadline for submissions is the Week of the Monthly Meeting for inclusion in the following month's issue.

For any additional information contact: Newsletter Editor: Barry Zoll, N1TOQ (770)277-5175 N1TOQ@arrl.net

All correspondence relating to articles posted in *The GARZETTE* or for information concerning advertising rates should be drected to the following address:

Gwinnett Amateur Radio Society P.O. Box 88 Lilburn, GA 30048 Attn: Newsletter Editor



GARS Elmers

Many of us Hams got interested in the hobby as a result of some influence and experienced Ham had on us. In my case, a ham stopped at my dealership back in the mid-80's to arrange a repair on his outboard motor. He had a funny looking license tag on his yellow Corvette and I inquired what it was. Little did I know, he would be my "Elmer".

The GARS organization is blessed with a lot of talented members that are willing to share their knowledge. The following list is made up of those individuals willing to serve as Elmers. Hopefully, this list will grow, and in time, maybe we'll get more who are willing to add a particular area of expertise.

KF4KSE David Moon (770) 279-9924 mobile radio installation KG4IUM Andrea Hartlage (770) 963-2715 making QSL cards N1TOQ Barry Zoll (678)-339-2605 Generators and Standby Power Bill Carter, KG4FXG, Mobile CW

GENERAL INFORMATION:

WE5O Ron Langston (770) 569-8354 N1TWX Win Jackson (404) 869-1347 W4WKP Johnnie Fearon (770) 466-6401 WB2YAD Duane WB9JSW, Carl K4MJK Mike Kovak K4CB Carter Bennett (770) 923-5446 W4ADE Ade Wirth (770) 614-3743 K4HBI Mike Swiderski (770) 449-0369 W8KJM, Barney Barnes (APRS)

If you'd like to be a GARS Elmer, please email the editor of the Garzette at N1TOQ@arrl.net or call 678-339-2605.

John Davis Named as New GARS Membership

Lawrenceville, GA— John Davis, WB4QDX has been named the new GARS Membership Chairman. He succeeds Scott and Andrea Hartlage, KF4PWI and KG4IUM who did a great job during their tenure. Many thanks for all of your efforts.

Mr. Davis is a new GARS member and is excited with this great opportunity. In a recently released statement, Davis said:

"Greetings all:

As Scott (KF4PWI) and I are completing the handoff of Membership Chairman duties, I wanted to pass along my contact information to everyone. Please feel free to contact me with any information or membership information requests.

Please bear with me for the next few weeks as I get fully acquainted with the membership database, but be assured that continuity will be maintained as Scott and Andrea will remain to help as members of the Membership Committee.

As a new GARS member, I also look forward to meeting and getting to know each of you. Please feel free to use the contact information to update the newsletter, web page and any other place you feel is appropriate."

John A. Davis WB4QDX wb4qdx@gars.org 770-962-6129 Telephone 770-962-0602 FAX

THANKS JOHN AND WELCOME TO GARS !!!

STAY CONNECTED!

- Call the nets
- Attend the Meetings
- Use the Email List



GARS

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Dan Keohan, KF4YSU

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Eddie Foust, WD4JEM

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Barry Zoll, N1TOQ (770)277-5175

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David Adcock, KA4KKF

Education Coordinator

Win Jackson, N1TWX (404)869-1347

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Marty Fowler, KE4MLH

QSL Manager

Ade Wirth, W4ADE (770)614-3743

Webmaster

Michael Ivey, KG4QDH 770-931-2871

Scholarship Chairman

Carter Wood, AG4LK

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Ron Langston, WE5O

Technical Advisory

GWINNETT AMATEUR RADIO SOCIETY

June, 2002 Meeting Minutes
June 20, 2002
Submitted by J. Morgan Ringold, GARS Secretary

- > President Ike Chapman, K4WEC, opened the meeting at 7:50 PM.
- ➤ Introduction of Visitors: KG4OJN Rodolfo Ruiz, XE1ELL-Fernando Morales, K4JJM-Jared Lambert
- > Introduction of officers and members.
- ➤ May Meeting Minutes Approved
- Repeater Report Power supply on 6M repeater replaced
- ➤ Public Relations Report Video Library is available. Press Release appeared today (6/20) on Field Day in AJC.
- Field Day Menu:

Lunch Sat - Cold Cuts Dinner - BBQ Midnight - Stew/Cornbread Sun Breakfast - Omelets Lunch - Cold Cuts

- New 55ft crank-up Tower purchased. Trailer will be modified and new tower attached. To be done after field day.
- Treasurer's Report Only unusual items:
 \$195 spent on new banner
 New Budget Presented and approved by club
- ➤ 8:50 Break
- ➤ New Members Voted in:

WB4QDX - John Davis NJ4A Brian Addison Fred Murphy-Associate Member NB5E-Brandon White

The President's Pen

(continued from page 1)

tower. In the meantime, some modifications will be made to the existing trailer to accommodate the replacement tower and to make it more stable when being towed. We will need to ask for folks to come put in some elbow grease to get all this work done so we can have it rebuilt and put back into service. We will put out calls on the weekly net and the club meetings once we start to organize work parties in the very near future.

Our next big club effort will be our semi-annual fund raiser, a.k.a. the dog show, coming up on late August. Dan Keohan, KF4YSU has volunteered to act as chairman for the fund raising effort so Dan will be organizing the team for this event in the coming weeks.

That's all I have for this month, and I hope to see you all at the July club meeting on the 18th at Central Baptist Church in Lawrenceville.

73,

Ike, K4WEC



County Commissioner John Dunn, N4OAK (far right) presents Amateur Radio Week Proclamation to Mike Swiderski; K4HBI; Susan Swiderski, AF4FO; Dan Keohan, KF4YSU, Carlton McPherson, WA4ZUW, and Ike Chapman, K4WEC. (Photo courtesy of Gwinnett County Commissioner's Office).

Field Day 2002

Field Day, which is held on the 4th weekend of June each year, is the largest emergency preparedness exercise of the year. Hams throughout North America set up stations "in the field" and points are earned for the number of contacts, types of contacts, media involvement, and others. The American Radio Relay League, ARRL, oversees this event and publishes the rules for each year's event. For GARS, it's a chance for us to get together and share our fellowship. It is a public event and many new hams have been recruited as the result of their exposure to amateur radio at Field Day. This year, we were blessed with unusually cool weather but it invigorated the guys and gals who came out to operate.

Thanks to all for their efforts to put this event together and here are some pictures from Field Day, 2002.



Eddie, WD4JEM and Norm, KF4GMU are busy making contacts



Joe Biddle, AD4PZ, directing the tower erection. "C'mon guys, the contest starts in 5 minutes"



No GARS event is complete without proper nourishment.
"Where are the bagels?"



Mark Kozma, KD3GC (left) and FD Chairman David Adcock, KA4KKF are seen hitting the bands hard.



Andrea Hartlage and her dad Scott KG4IUM and KF4PWI sharing a moment together at Field Day.

THE FIELD DAY X FILES By Ron Langston, WE5O

It has always been an accepted fact that on ARRL Field Day almost anything can happen ... and it almost always does. But there are a few Field Day incidents that I recall that defy explanation. Each story involves lighting or something like lightning. First let me precede these stories with a strong recommendation that everyone read the upcoming series that began this month in QST about Lightning and Ham Radio. Lightning is nothing to fool around with or take lightly (no pun intended).

A lightning flash can happen in half a second. In that instant, the lightning flash superheats the surrounding air to a temperature five times hotter than that on the surface of the sun. Nearby air expands and vibrates, forming sound that we hear as thunder. Sound travels more slowly than light, so it seems that thunder occurs later. A lightning stroke frequently contains more than a billion volts of electrical power and can pretty much go wherever it can find a suitable path. One would not normally desire to be in that path. Especially on Field Day.

It was a balmy June day in St. Louis and the Gateway Amateur Radio Club was holding its regular Field Day event. We were running six stations off a generator and had a wonderful location in a St. Louis County park. Most of the stations were set up in large circular pavilion with antennas arranged like spokes around a wheel. It was about 9:00 p.m. and everyone was beginning to get into the rythum of making contacts and the SSB stations were really filling their log books on 20 and 40 meters. Everyone was feeling full after a great dinner that had been provided by the club. With the welcome cool breezes that came with evening no one had paid much attention when one of those afternoon thunder boomers developed quickly and came rolling over the big oaks of the park.

Suddenly everyone was scrambling to secure the stations, ground the antennas and cover the equipment as a hard wind driven rain began to lash the area. Lightning strikes seemed to be coming quickly and it was clear that this storm meant business. (In Missouri one does not normally take any thunderstorms for granted since it is Tornado Alley.) However, to my horror the operators of the 20 and 40-meter SSB stations had not secured. Instead, they decided to show their bravery by continuing to make contacts. The lightning was making some really scary ground strikes close to our location and before I could go over and urge the two operators to shut down a very strange thing occurred.

As the two operators hunched down behind their equipment in a futile effort to stay dry while still yelling CQ over the mael-strom, a jagged streak of orange/yellow flame jumped from the hand held microphone of the twenty-meter station to the handheld microphone of the forty-meter station. It happened so quickly that neither operator had time to hit the ground or drop their mikes. A bright light at the forty-meter antenna and a cannon-like roar instantly followed all this. I felt like I was at ground zero at a fourth of July fireworks show.

It was a "Kodak moment" and I only wish I could have captured the expressions of both operators at that instant. Needless to say, when the two operators got their breath they quickly shut down and asked if anyone else had seen the incident. They tried to continue their bravery by laughing and acting like this had simply been a scary and unusual Field Day event. The higher pitch of their voices betrayed them. A subsequent examination of their gear found it had miraculously not been damaged and both of the mikes still worked. However on one of the mikes was a melted spot about one inch in diameter.

I don't know what happened for sure, but I think what might have happened is that the positive charge that collects around objects before a lighting strike had set up an upward step leader that connected with a downward negative leader from one antenna through he mike of one of the rigs through the mike of the other, but the return strike (or lighting bolt, if you will) shorted the path to the forty meter antenna. No matter what had actually taken place, it was indeed a miracle that neither operator had been injured. We talked about that incident for several Field Days to illustrate the importance of timely shut down during thunder storms.

The second story that I will add to this Field Day list of X events took place on the cliffs overlooking the Mississippi River. I was participating in Field Day with my friend and 'Elmer', Bill Stocking W0VM. We were on the campus of Principia College, and it was a lovely site for a Field Day setup. We had one station located in a tent and three antennas: a large 80-meter dipole, an inverted vee, and a 60-foot vertical. All of the antennas were fed with balanced line and one member of the team had built a beautiful new tuner. It was very similar to the one that has been featured in QST for the past few months, except it did not have autotune or fancy lights. We were operating 1A cw with battery power to maximize the value of our contacts. Each shift was three hours: one hour as logger, one hour as dupe checker, and one hour as operator. This gave everyone a chance run two or three shifts and not be overly tired. We had about 15 op-

erators involved.

Dr. Dave Cornell was the head of the Physics department at the College and we were using his callsign, K9BO. (We sometimes referred to ourselves as the "doggy odor" team.) It was a terrific team and we had great food for the event. This is a prime requirement for a successful Field Day... great food. Plus the campus was at least 300 feet above the river, which gave us high point for the local terrain.

When if came time for me to operate it was late afternoon and I noticed that the weather had become clammy and there were some dark clouds beginning to build up on the horizon. I told several of the hams that were outside the operating tent to be sure and let me know if storm clouds developed..

About twenty minutes into my session I noted that I was really racking up contacts on the big vertical. It certainly was an effective antenna up there on that hill. Without warning, I heard a loud crack of thunder from outside the tent and a simultaneous flash fire and smoke from the antenna turner that I was using (the new one, of course). I shut down the station, checked for any continuing fire and, and had everyone on my shift quickly evacuate the tent. When I got outside I was greeted by dark storm clouds and rolling thunder claps. I sought out the hams that I had previously asked to warn me if a thunderstorm developed. They looked sort of sheepish when I scolded them. Apparently, there had not been any local thunder preceding the incident. As relayed to me by several observers, a large blue/violet corona, or doughnut had formed around the vertical antenna. It slowly rolled up to the top of the 60 foot antenna where it seemed to roll up into the air with a loud report and gray smoke ring.

I have thought about that incident many times later and wondered if that was lightning why did we not get more damage or a louder report. I have just about come to the conclusion that the experience we had was not with lightning, but with St. Elmo's Fire. St. Elmo's Fire is a type of contiguous electric spark called a "glow discharge." You've seen it many times before, since it is almost exactly the same as the glows found inside fluorescent tubes, mercury vapor streetlights, old orange-display calculators and in "eye of the storm" plasma globes. When it occurs naturally, we call it St. Elmo's Fire, but when it occurs inside a glass tube, we call it a neon sign.

I won't get into the technical composition of St. Elmo's fire other than to say that St. Elmo's fire and normal sparks both can appear when electrical voltage affects a gas. St Elmo's fire is seen during thunderstorms when the ground below the storm is electrically charged, and there is high voltage in the air between the cloud and the ground. The voltage tears apart the air molecules and the gas begins to glow. It takes about 30,000 volts per centimeter of space to start a St. Elmo's fire (although sharp points can trigger it at somewhat lower voltage levels).

St. Elmo's fire is sometimes mistaken for ball lightning. Among other differences, ball lightning can drift around like a soap bubble, while St. Elmo's Fire always remains attached to an object. St. Elmo's Fire is an example of a continuous corona discharge. It is not a form of lightning. The luminous glow of St. Elmo's Fire sometimes is observed at night from the tops of ships' masts when electrified clouds are overhead. The mast appears to be on fire but does not burn. St. Elmo's Fire tends to occur toward the end of a thunderstorm. Mariners have traditionally interpreted it as a good omen. That must be so because were first in our Field Day class that year.

Perhaps we shall see some St. Elmo's Fire this year at the GARS Field Day. If so it is good to know that such things have amazed people for a long time. Even Bill Shakespeare in *The Tempest* (Act I, Scene 2) had this to say in describing St. Elmo's Fire

I boarded the Kings' ship; now in the beak, Now in the waist, the deck, in every cabin, I flamed amazement; sometime I'd divide And burn in many places; on the topmast The yards and bowsprit, would I flame distinctly Then meet and join.

So that's my Ham Radio X Files report for this year. 73 for now and cu at FD. WE50

Metro Atlanta Club Meetings

First Tuesday

Metro Atlanta Telephone Pioneers

Old Hickory House 5490 Chamblee/Dunwoody Rd, Dunwoody Dutch dinner is at 6:30 PM, followed by meeting. Talk In 145.410(-)

Kennehoochee ARC

First United Methodist Church in Marietta Meeting begins at 7:30 PM Talk In 146.880(-)

First Thursday Atlanta Radio Club

American Red Cross Building, Lindberg Plaza Meeting is at 7:30 PM Talk In -146.820(-)

N.E. Georgia ARC

Jefferson Civic Center Off of Memorial Dr. toward Winder from Jefferson Meeting is at 6:30 PM Talk In - 147.225(+)

North Fulton Amateur Radio League

Shoney's Restaurant
Holcomb Bridge Road at grimes Bridge Road
Dinner at 6:30 PM, meeting at 7:30 PM
Talk In - 145.47(-)

Second Thursday Alford Memorial Radio Club

Killian Hall, Killian Hill Road Lilburn Dinner at 6:00 PM, meeting at 7:30 PM Talk In - 146.760(-)

Second Saturday East Atlanta LAN

St. Patrick's Episcopal Church Dunwoody Meeting is at 10:00 AM Talk In - 145.410(-) and 443.025(+)

Third THURSDAY Gwinnett Amateur Radio Society

Central Baptist Church Gwinnett Drive, Lawrenceville Meeting begins at 7:30 PM in the fellowship hall. Talk In -147.075(+) and 444.525(+)

First Saturday North GA QRP Club

Wieuca Baptist Church on Peachtree Rd/Wieuca, 10 AM
Tues. Night Nets,PSK31 at 8:00 PM 3580 khz, 9:00 PM FM net on 145.41 mhz, CW at 9:30 PM 3568.4 khz
Contact Russ AE4NY....770-457-0371

Metro Atlanta VE Exam Schedule

GARS publishes Metro Atlanta area VE exam schedules as a service and is not responsible for errors or changes. Call and confirm schedules before going. All sessions are walk-in. Take copies of current license and certificate of completed elements with you to all sessions.

First Sunday

WCARS VEC 2:00 PM

(Except July and September) Johnson High School 3305 Poplar Springs RD, Gainsville Terry Jones, W4TL (770)967-6364

First Saturday

9:00AM

Clayton County Emergency Management Building 7496 N. McDonough St., Jonesboro George White, KN4NG (770)361-6850

Second Tuesday

7:00PM Walton EMC 3645 Lenora Church Rd, Snellville Wayne Taylor, WD4CCA (770)498-7759

Second Saturday, Odd Months

CA VEC 8:30 AM Stone Mountain Methodist Church 5312 West Mountain St. Stone Mountain Bob Verone, W4ETN (770)978-3179

Third Saturday

CA VEC 9:00AM

Marietta First United Methodist Church Room 305, 56 Whitlock Ave Marietta Larry Huff, WA4CQZ (770)955-3171

Fourth Tuesday

ARRL VEC 7:00 PM Way Service C

United Way Service Center 6279 Fairburn Road, Douglasville Jessie Clower, KB4WFK (770)942-6466.

Fourth Friday

W5YI VEC 7:00 PM St. John Neumann Church 801 Tom Smith Road Lilburn Headphones Provided! Howie Gould, W9HG (770)921-8362



GARS Communication System

6 Meter Repeater

53.110 (-1 MHz) MHz 82.5 PL

Main Repeater Site
Oak Street, Lawrenceville

2 Meter Repeater

147.075(+) MHz 82.5 PL Tone

Main Repeater Site
Oak Street, Lawrenceville

Backup Repeater Site
Lanier Mountain, Snellville

Remote Receive Sites
Bogan Road, Buford
Goshen Springs Road, Norcross
Lanier Mountain, Snellville

70 Cm Repeater 444.525(+) MHz

82.5 PL

<u>Main Repeater Site</u>

Lanier Mountain, Snellville

<u>Remote Receive Sites</u>

Bogan Road, Buford Goshen Springs Road, Norcross

APRS

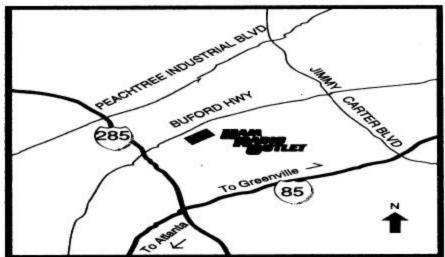
144.390 -- 1200 Baud W4GR/Relay

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To receive the **Garzette** via email... contact: John A. Davis WB4QDX wb4qdx@gars.org





July 18th, 2002 Executive Committee GARS Club Meeting

August 15th, 2002 Executive Committee GARS Club Meeting Fund Raising Event

September 19th, 2002 Executive Committee GARS Club Meeting

Meeting Time—Location

3rd Thursday, 7:30 PM Central Baptist Church, Gwinnett Dr, Lawrenceville

Talk in 147.075(+) MHz 82.5 PL Tone